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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,341	11/16/2000	Hans Eberle	1004-4253-1	6497
22120	7590	07/20/2005	EXAMINER	
ZAGORIN O'BRIEN GRAHAM LLP			NGUYEN, HANH N	
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SUITE 350			ART UNIT	
AUSTIN, TX 78731			PAPER NUMBER	
			2662	

DATE MAILED: 07/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/714,341

Applicant(s)

EBERLE ET AL.

Examiner

Hanh Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-26 and 28-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-23, 28-31 and 33-38 is/are rejected.
- 7) ☒ Claim(s) 3,24-26 and 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-23, 28-31, 33-38 are rejected under 35 USC 103(a) as being unpatentable over Angle et al.(Pat. 6,771,596 B1) in view of Kilkki et al.(Pat. 6,549,938 B1).

In claims 1, 8, 9, 18-23, 31, 35 and 38, Angle et al. discloses, in fig.4, dotted Grant lines ( data paths) from outputs 0, 1 and 3 are allocated ( allocating a first resource comprising data paths) by manager 110 ( an arbiter, see fig.2) in accordance with solid line requests (in accordance with first request). See col.9, lines 10-35. In fig.3, the grant lines are allocated in repeated sequences for each class of services in decreasing order of priority (the first group and subsequent groups are allocated in sequence). See col.7, lines 40-50. Fig.10 shows that the first class of service is scheduled based on a predetermined period ( first group allocated for a particular time period, see col.17, lines 8-15). The grant lines are scheduled by time slot control logic 210 (fig.3) and performed during time slot depend on multicast or unicast transmission (requests are allocated in time slots / time period, see col.6, lines 5-15 and col.16, line 65 to col.17, line 25). According to the specification, page 7, line 24 to page 8, line 2, "regular request" is asynchronous request for non-period data. Angle further discloses the network device 100 in fig.1 is applicable to in ATM network. Therefore, the allocated resources are non-

periodic. Angle et al. does not disclose the data paths coupling initiator node of the network to target nodes of the network.

Kilkki et al. discloses, in Fig.2 user 20 (initiator node) requests operator 22 (arbiter) for a connection to destination 36 via network 30. Arbiter 22 evaluates connections associated with other users in the network to allocate the user 20 a connection to transmit (see col.6, lines 60 to col.7, line 10). Therefore, it would have been obvious to one ordinary skilled in the art to allocate data paths coupling initiator node and target node of the network in Angle et al. by using the network 30 of Kilkki et al. The motivation is to allocate resources for both period request and non-period requests.

In claims 4, 6, 33 and 36, the limitation of these claims have been addressed in claim 1.

In claim 5, 7, 13, 29 and 34, the limitations of these claims have been addressed in claim 1.

In claims 10, Angle et al. et al. shows the scheduling is conflict free. See col.8, lines 1-10.

In claims 11 and 37, the limitations of these claims have been addressed in claim 1.

In claim 12, Angle discloses centralizer scheduler is implemented as software executable on a node coupled on the network (see col.3, lines 47-55).

In claim 14, the limitation of this claim has been addressed in claim 1.

In claim 15 the limitation of this claim has been addressed in claim 1.

In claim 16, as mentioned previously in claim 1, the data in Angle et al. can be scheduled on a periodic basis.

In claim 17, Angle discloses the transmission medium is a network switch 100 (see fig.1)

In claim 28, the limitation of this claim has been addressed in claim 1.

In claim 30, the limitation of this claim has been addressed in claim 1.

In claims 19 and 20, Angle et al. discloses the arbiter receives a vector including preallocated requests and regular requests from the sources (fig.4 shows vector requests 425-428).

#### ***Allowable Subject Matter***

Claims 3, 24-26, 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claims 3 and 32, the prior art does not disclose receiving the first request for the first resource in a centralized scheduler, the centralized scheduler residing in one of a plurality of requesters on the communication network; and receiving the regular requests at a centralized arbiter separated from the centralized scheduler.

In claim 24, the prior art does not disclose the first portion is reserved in a scheduler separated from an arbiter, the arbiter allocating the second portion, the scheduler providing a schedule to the arbiter indicating the reserved first portion.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 4-23, 28-31 and 33-38 have been considered. Claims 3, 24-26 and 32 are objected. Claims 1, 4-23, 28-31 and 33-38 are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Calvignac (US 6,370,148) and Takahuhi et al. (US 4,792,944) disclose systems that either choose which resource should be sent or how the time slots in a given system should be used.

Lund et.al. ( Pat.5517495) discloses Fair Prioritized Scheduling in an Input-Buffered Switch.

Mc Keown (Pat. 5500858) discloses Method and Apparatus for Scheduling Cells in an Input Queued Switch.

Any inquiry concerning this communication or earlier communications from the

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examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on M-F, 9-5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hasan Kizou can be reached on 571 272 3088. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pe-direct.uspto.gov>. Should you have questions on access to the Private PMR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen



July 18, 2005

**HANH NGUYEN  
PRIMARY EXAMINER**